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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/710,297

06/30/2004

Hitoshi MATSUMOTO

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02/23/2005

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EXAMINER

MOUTTET, BLAISE L

ART UNIT

PAPER NUMBER

2853

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/710,297	MATSUMOTO ET AL.	
	Examiner	Art Unit	
	Blaise L. Mouttet	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6/30/2004 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/318,268.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12/14/2004</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 1-5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murray et al. US 5,610,635 in view of Hirst et al. US 5,930,553.

Murray et al. discloses, regarding claim 1, a recycled ink cartridge (figures 2 and 3) manufactured by recycling a used ink cartridge (as explained in column 13, lines 27-31 the ink cartridge is periodically refilled for reuse which is equivalent to being recycled), the recycled ink cartridge comprising:

a container having an ink chamber (52) for containing ink therein (figure 2);

an ink supply port in fluid communication with the ink chamber (although not explicitly indicated this is implicitly necessary for the refilling discussed in column 13, lines 27-31); and

a memory device (48).

Regarding claim 4, the memory device (48) stores data (drop count) related to the ordinal number of a recycling operation carried out by the used ink cartridge (as explained in column 13, lines 15-35 the number of ink drops expelled is stored in the memory and is related to the number of refill operations carried out by the ink cartridge).

Regarding claim 5, the memory device (48) stores data (ink type and color) related to an exchange of a part (ink liquid) of the used ink cartridge by a recycling operation (column 3, lines 30-35).

Regarding claim 9, the memory device stores data indicative of a minimum amount of ink (amount of remaining ink) held in the cartridge (column 10, lines 6-7).

Murray et al. fails to disclose, regarding claims 1-3, that the memory device stores data indicative of when the used ink cartridge was recycled including data indicative of the date of recycling or the date of refilling.

Hirst et al. provides teachings relevant to recycling of print consumables such as ink cartridges and memory devices associated with the cartridges (abstract, column 4, lines 7-23). Hirst et al. teaches transferring data indicating the date of recycling/refilling from a computer to a memory device on a print consumable (column 5, lines 7-10, column 6, lines 4-20, figures 4-6).

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It would have been obvious to a person of ordinary skill in the inkjet art at the time of the invention to include data indicative of when the used ink cartridge was recycled/refilled, as taught by Hirst et al., in the memory device of Murray et al.

The motivation for doing so would have been to help the re-manufacturer who recycles the ink cartridge to generate and gather statistics for future re-manufacturing as indicated by column 1, lines 25-40 of Hirst et al.

2. Claims 1, 2, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Childers et al. US 6,126,265 in view of Hirst et al. US 5,930,553.

Childers et al. discloses, regarding claim 1, an ink cartridge (figures 2 and 3) comprising:

- a container having an ink chamber (26) for containing ink therein (figure 2);
- an ink supply port (50) in fluid communication with the ink chamber (figure 3, column 5, lines 5-9); and
- a memory device (28).

Regarding claim 6, the memory device (28) stores data (flushing frequency) related to a method of charging ink into a printhead (12) from the ink cartridge (as explained in column 5, lines 34-36 and column 6, lines 42-55 cleaning methods for the printhead and flushing parameters for such methods are stored in the ink cartridge memory).

Regarding claim 7, the memory device stores data (number of spits, drops fired, flushing frequency) related to an amount of ink drawn via the printhead from the ink cartridge (column 5, lines 21-35).

Childers et al. fails to disclose, regarding claims 1 and 2, that the ink cartridge was recycled or that the memory device stores data indicative of when the ink cartridge was recycled including data indicative of the date of recycling.

Hirst et al. provides teachings relevant to recycling of print consumables such as ink cartridges and memory devices associated with the cartridges (abstract, column 4, lines 7-23). Hirst et al. teaches transferring data indicating the date of recycling to a memory device on a print consumable (column 5, lines 7-10, column 6, lines 4-20, figures 4-6).

It would have been obvious to a person of ordinary skill in the inkjet art at the time of the invention to recycle the ink cartridge of Childers et al. and include data indicative of when the ink cartridge was recycled, as suggested by Hirst et al., in the memory device of the ink cartridge.

The motivation for doing so would have been to avoid waste and to help the re-manufacturer who recycles the ink cartridge gather statistics as indicated by column 1, lines 25-40 of Hirst et al.

3. Claims 1, 2, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ujita et al. US 5,506,611 in view of Hirst et al. US 5,930,553.

Ujita et al. discloses, regarding claims 1 and 8, an ink cartridge (figure 11) comprising:

a container (12) having an ink chamber for containing ink therein (column 16, lines 39-41);

an ink supply port in fluid communication with the ink chamber (as shown and described in relation to figure 10 insertion of the ink container in the printer allows ink to be supplied to the printer from the container); and

a memory device (30) provided on a circuit board (31) containing electrical contacts (33), said memory device (30) provided on a surface of the circuit board (31) opposite to a surface containing the electrical contacts (33) (figure 10, column 16, lines 44-50).

Ujita et al. fails to disclose, regarding claims 1 and 2, that the ink cartridge was recycled or that the memory device stores data indicative of when the ink cartridge was recycled including data indicative of the date of recycling.

Hirst et al. provides teachings relevant to recycling of print consumables such as ink cartridges and memory devices associated with the cartridges (abstract, column 4, lines 7-23). Hirst et al. teaches transferring data indicating the date of recycling to a memory device on a print consumable (column 5, lines 7-10, column 6, lines 4-20, figures 4-6).

It would have been obvious to a person of ordinary skill in the inkjet art at the time of the invention to recycle the ink cartridge of Childers et al. and include data

indicative of when the ink cartridge was recycled, as suggested by Hirst et al., in the memory device of the ink cartridge.

The motivation for doing so would have been to avoid waste and to help the remanufacturer who recycles the ink cartridge gather statistics as indicated by column 1, lines 25-40 of Hirst et al.

Response to Arguments

4. Applicant's arguments filed January 14, 2005 have been fully considered but they are not persuasive.

The applicant has argued that Hirst et al. discloses that the memory device stores a manufacture date but not a remanufacture (i.e. recycle) date. The examiner disagrees. Hirst et al. clearly states that information is obtained from the ink cartridge and updated information is input during recycling of the cartridge (column 6, lines 4-12). This information includes date information and Hirst et al. specifically indicates an area in memory for this date information (column 5, lines 7-10). While referred to as a manufacture date, when an ink cartridge is repeatedly remanufactured (as taught by Hirst et al.) a remanufacture date would correspond to a new manufacture date as indicated by the context of column 1, lines 25-40 of Hirst et al.

Applicant's new claims have necessitated new rejections.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Blaise Mouttet who may be reached at telephone number (571) 272-2150. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier, Art Unit 2853, can be reached at (571) 272-2149. The fax

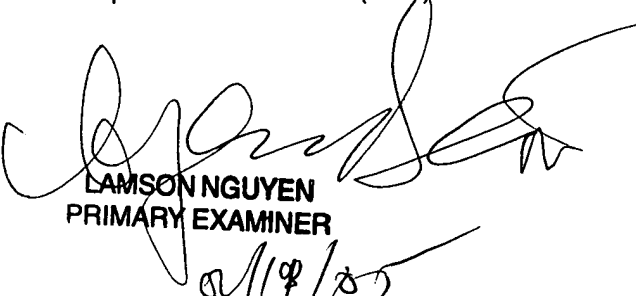
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phone number for the organization where this application or proceeding is assigned is
(703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or
proceeding should be directed to the receptionist whose telephone number is (703) 308-
0956.

Blaise Mouttet February 9, 2005

Blaise Mouttet 2/9/2005


LAMSON NGUYEN
PRIMARY EXAMINER
2/17/05